

**REMARKS**

The Office Action describes claims 1-30 as pending and rejected. Applicant notes that only original claims 1-27 are pending and rejected since no claims 28-30 are believed to exist in the application as of the date of mailing of the Office Action.

**Rejection of Claims 1-4, 8-11 and 13-15 under 35 U.S.C. §102(b)**

Claims 1-4, 8-11 and 13-15 stand rejected under 35 U.S.C. §102(b) as being anticipated by Franks, U.S. Patent No. 4,359,641 in combination with Puseljic et al, *IEEE Transaction of Nuclear Science*.

Independent claims 1 and 9 are hereby amended to emphasize an embodiment of the present invention in which a medium for a scintillation assay includes a solid body including a first scintillator material wherein the first scintillator material is a fluorescent Coumarin dye having a Stokes shift of at least 50 nm, wherein the fluorescent emission of the solid body including a first scintillator material is in the range of 460-500 nm. The Franks reference does not teach or suggest such a solid body or assays using such a solid body and the reference therefore does not anticipate the claims. Applicant respectfully requests withdrawal of the rejection.

Furthermore, the instant claims are not obvious in view of Franks or any combination of cited references. In particular, Applicant notes that the Franks reference is limited to teaching liquid scintillators. In addition, the Franks reference appears to teach that the emission characteristics of the dyes used depend on characteristics of different solvents present in the liquid scintillator (Table 1). Applicant notes that the Puseljic et al reference also appears limited to teaching characteristics of particular dyes in a single liquid solvent, 1-phenylnaphthalene. It is submitted that none of the references cited, alone or in combination appear to teach or suggest a solid body including a fluorescent Coumarin dye having a Stokes shift of at least 50 nm, wherein the fluorescent emission of the solid body including a first scintillator material is in the range of 460-500 nm.

In view of Applicant's belief in the allowability of instant independent claims 1 and 9 over the cited references, Applicant submits that the dependent claims 3-4, 11 and 14-15 are

likewise allowable. Applicant submits that these dependent claims encompass patentable subject matter separate from the dependence on allowable base claims. Applicant reserves the right to make such remarks of record in the event that the rejection is maintained. Applicant respectfully requests withdrawal of the rejection and allowance of the claims.

**Rejection of Claims 5-7, 12 and 16-27 under 35 U.S.C. §103(a)**

Claims 5- 7, 12 and 16-27 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Franks, U.S. Patent No. 4,359,641 in view of various references

Applicant believes that the instant claims are not obvious over Franks in combination with any of the cited references.

Firstly, with regard to independent claim 16, Applicant notes that the Franks reference is limited to teaching liquid scintillators. In contrast, independent claim 16 describes a “solid state member for a scintillation proximity assay.”

Secondly, the Franks reference appears to teach that the emission characteristics of the dyes used depend on characteristics of different solvents present in the liquid scintillator (Table 1) and appears to provide no information relevant to solids. Applicant notes that the Puseljic et al reference also appears limited to teaching characteristics of particular dyes in a single liquid solvent, 1-phenylnaphthalene. Applicant submits that neither the Franks reference nor the Puseljic et al reference provide a teaching of emission characteristics of coumarin dyes in anything other than liquid scintillation materials.

The cited Costa et al reference does not appear to add to any factual analysis of the present claims since this patent also does not describe a solid state member having a fluorescent emission in the range of 460-500 nm.

Regarding independent claim 25, the examiner asserts that the “combined teaching of Franks and Birks teaches a liquid scintillator cocktail comprising Coumarin dye as first scintillator material and PPO or DPA as second scintillator material.”

Applicant hereby amends independent claim 25 to emphasize that a liquid scintillation cocktail according to the claim has a fluorescent emission in the range of 460-500 nm, allowing for detection by both CCD and PMT devices. It is submitted that the subject matter of claim 25

is not obvious over the combined teachings of Franks and Birks since neither Franks nor Birks, nor a combination of these references, provides information that a liquid scintillation cocktail comprising Coumarin dye as first scintillator material and PPO or DPA as second scintillator material” has a fluorescent emission in the range of 460-500 nm. Therefore, neither reference teaches all aspects of the claims and no *prima facie* case of obviousness is established.

In view of Applicant's belief in the allowability of instant independent claims 1, 9, 16 and 25 over the cited references, Applicant submits that the dependent claims 5-7, 18-24 and 27 are likewise allowable. Applicant submits that these dependent claims encompass patentable subject matter separate from the dependence on allowable base claims. Applicant reserves the right to make such remarks of record in the event that the rejection is maintained. Applicant respectfully requests withdrawal of the rejection and allowance of the claims.

#### Summary

Claims 1, 6, 9, 16 and 25 are hereby amended. Claims 2, 8, 10, 13, 17 and 26 are hereby cancelled such that claims 1, 3-7, 9, 11-12, 14-16, 18-25 and 27 are pending in the present application. Applicant believes the claims to be in condition for allowance and respectfully requests reconsideration and allowance of the claims.

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Respectfully submitted,

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